UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,116	11/02/2001	Sundar Raman	01-1015	8024

7590   07/27/2005

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EXAMINER
AVELLINO, JOSEPH E

ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/004,116	RAMAN ET AL.
	Examiner	Art Unit
	Joseph E. Avellino	2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>07 July 2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-19</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-19</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-19 are presented for examination; claims 1, 6, 7, 10, 11, 13, 18, and 19

independent.

Claim Rejections - 35 USC § 112

2.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

3.   Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

4.   Claim 17 recites the limitation "the database" which lacks antecedent basis. For

examination purposes, the database will be understood to be the control node.

Correction is required.

Claim Rejections - 35 USC § 102

5.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

Claims 1-9, 18, and 19 are rejected under 35 U.S.C. 102(e) as being anticipated

by Jordan et al. (USPN 6,438,652) (hereinafter Jordan).

6.   Referring to claim 1, Jordan discloses a method of load balancing in an upstream

proxy (i.e. load monitor 120) (col. 5, lines 40-65), the method comprising:

        receiving information from a plurality of downstream proxies 150 at a control

node (i.e. load monitor 120) (col. 6, lines 6-25);

        maintaining a list of downstream proxies (Figure 2b, ref. 102 load table; col. 6,

lines 10-15);

        assigning a weight to each of the downstream proxies in the list, the weight

based upon information received from the downstream proxies (col. 6, lines 6-25).

7.   Referring to claim 2, Jordan discloses receiving a request and using the weights

to assign a proxy (col. 6, lines 25-27).

8.   Referring to claim 3, Jordan discloses the information is indicative of the traffic

load on the downstream proxy (i.e. number of forwarded requests and number of direct

requests (col. 6, lines 15-17).

9.   Referring to claim 4, Jordan discloses the information is indicative of the number

of requests in the responses of the downstream proxy (col. 6, lines 15-17).

10.   Referring to claim 5, Jordan discloses the load is determined by querying (i.e.

probing) the processes of the downstream proxy (col. 6, lines 10-16).

Art Unit: 2143

11.   Claims 6-9, 18, and 19 are rejected for similar reasons as stated above.

Claim Rejections - 35 USC § 103

12.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

Claims 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Jordan in view of Zisapel et al. (USPN 6,665,702) (hereinafter Zisapel).

13.   Referring to claim 10, Jordan discloses the invention substantively as described

in claim 1. Jordan furthermore discloses sending a message to each of the proxies (i.e.

probing) (col. 6, lines 10-15). Jordan does not disclose determining a response time for

each of the messages sent to the proxies and assigning weights to each of the proxies

based on the response time. In analogous art, Zisapel discloses another method of

assigning weights to a group of proxies wherein a response time is determined for each

of the messages sent to the proxies (i.e. polling request and results) (Figures 2D-2E)

and assigning weights (i.e. network proximity) to each of the proxies based on the

response time (col. 14, lines 40-63; col. 15, lines 8-25). It would be obvious to a person

of ordinary skill in the art at the time the invention was made to combine the teaching of

Zisapel with Jordan since Jordan teaches that the load of a cache server can be a

weighted sum of requests (col. 6, lines 15-17), however does not state that it is required

to be this and furthermore one of ordinary skill in the art would know that it is well known

there are numerous other attributes and methods to determine load and weighting of a

cache server. This would lead one of ordinary skill in the art to search for other

methods as to how to determine the weighting of a server, eventually finding the system

of Zisapel and its novel method of utilizing the proximities of the server farms based on

polling methods to determine which would be the best server farm in order to service

the request.

14.   Claims 11 and 13 are rejected for similar reasons as stated above. Furthermore

Zisapel discloses a location server directing the messages received by the control node

to the proxies (Figure 2E, ref. 54).

15.   Referring to claims 12 and 14, Jordan in view of Zisapel discloses the invention

substantively as described in the claims above. Jordan in view of Zisapel do not

disclose implementing the SIP protocol or using an INVITE message. However Jordan

in view of Zisapel does disclose numerous polling methods in which to determine the

proximities of the other servers (Zisapel: col. 4, lines 45-52). This would lead one of

ordinary skill in the art to search other techniques in which to poll servers to elicit a

response to determine the round trip time. It is also well known that the SIP INVITE

message will elicit a response from a remote server to the sender (see SIP: Session

Initiation Protocol, RFC 2543, p. 27, cited by Applicant in IDS). Therefore by this

rationale it would have been obvious to one of ordinary skill to modify the system of

Jordan in view of Zisapel in order to implement the SIP protocol to provide another polling technique since any one polling request might fail as supported by Zisapel (col. 15, lines 5-7).

16.   Referring to claim 15, Jordan in view of Zisapel disclose the invention substantively as described in claim 13. Jordan in view of Zisapel further disclose the information received by the control node from the proxies indicates a time delay (i.e. TTL value) (col. 14, line 64 to col. 15, line 7). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Zisapel with Jordan since Jordan teaches that the load of a cache server can be a weighted sum of requests (col. 6, lines 15-17), however does not state that it is required to be this and furthermore one of ordinary skill in the art would know that it is well known there are numerous other attributes and methods to determine load and weighting of a cache server. This would lead one of ordinary skill in the art to search for other methods as to how to determine the weighting of a server, eventually finding the system of Zisapel and its novel method of utilizing the proximities of the server farms based on polling methods to determine which would be the best server farm in order to service the request.

17.   Claim 16 is rejected for similar reasons as stated above.

18.   Referring to claim 17, Jordan discloses including a plurality of records (i.e. load

table) (Figure 1b, ref. 120').

Response to Amendment

19.   The Office has considered the amendment to claim 4. The Office withdraws the

rejection under 35 USC 112, second paragraph.

20.   Applicant also stated that corrections have been made to overcome the rejection

of claim 17. However the Office cannot find any amendment to this claim or any claim it

depend upon (i.e. claim 13). Therefore this claim still stands rejected under 35 USC

112, second paragraph as lacking antecedent basis.

Response to Arguments

21.   Applicant's arguments filed July 7, 2005 have been fully considered but they are

not persuasive.

22.   In the remarks, Applicant argues, in substance, that (1) neither Jordan nor

Zisapel Teach or suggest a Control node.

23.   As to point (1), Applicant is correct in pointing out that Figure 1b does not

disclose a control node, and that each cache server 150 comprises a load monitor.

However Applicant will appreciate that Figure 1a shows a load monitor 120 which

coordinates the routing of cache requests to each of the cache servers. It will also be appreciated that the load conditions 1021 can be updated periodically *by probing each cache server* (which can be seen as receiving information from a plurality of downstream proxies by the reference character 125 from each cache server 150 to the load monitor 120 of Figure 1a). This clearly demonstrates that Jordan discloses a control node. By this rationale, the rejection is maintained.

Conclusion

24.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph E. Avellino whose telephone number is (571) 272-3905. The examiner can normally be reached on Monday-Friday 7:00-4:00.
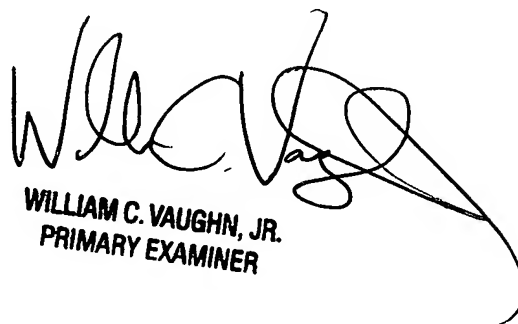
If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

JEA
July 21, 2005

WILLIAM C. VAUGHN, JR.
PRIMARY EXAMINER